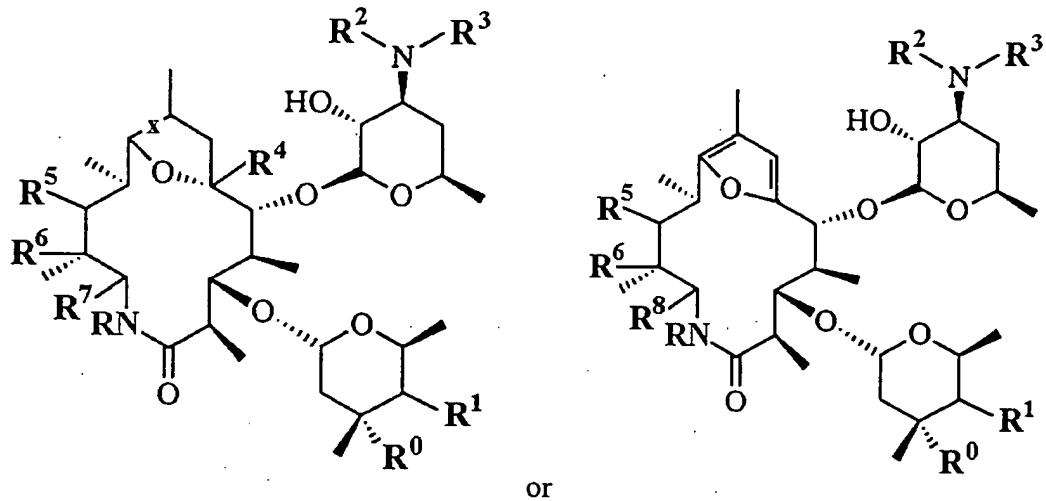


What is claimed is:

1. A compound of the structure



5 wherein:

R is hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R⁰ is hydroxyl or methoxy;

R¹ is selected from the group consisting of hydrogen, hydroxyl, halide, NH₂, OR⁹,

OOCR⁹, OCNCR¹⁰R¹¹, NCR⁹, and NCNCR¹⁰R¹¹ where R⁹ is substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl, and R¹⁰ and R¹¹ are each independently hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl,

20 alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl,

substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R² and R³ are each independently selected from the group consisting of hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted 5 C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, and unsubstituted alkynylaryl, or R² and R³ together form a cycloalkyl or an aryl moiety;

10 R⁴ is hydrogen or methyl;

10 R⁵ is hydroxyl or oxo;
R⁶ is hydrogen, hydroxyl, or OR¹² where R¹² is substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, or unsubstituted C₂-C₁₀ alkynyl;

15 R⁷ is methyl, unsubstituted C₃-C₁₀ alkyl, substituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

20 R⁸ is unsubstituted C₁-C₁₀ alkyl, substituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl; and,

x is a single or a double bond.

2. The compound as in claim 1 wherein:

25 R is hydrogen, methyl, ethyl, propyl, isopropyl, phenyl or benzyl; R⁰ is hydroxyl or methoxy;

R¹ is hydrogen or hydroxyl;

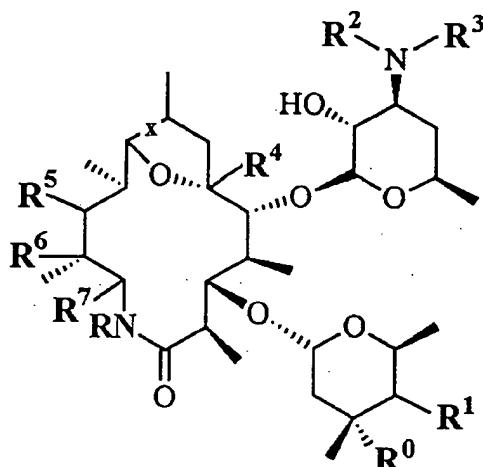
R² is methyl;

R³ is methyl, ethyl, propyl, isopropyl, butyl, isobutyl, secbutyl or tertbutyl;

30 R⁴ is methyl;

R^5 is hydroxyl;
 R^6 is hydroxyl or methoxy;
 R^7 is methyl, vinyl, propyl, isobutyl, pentyl, prop-2-enyl, propargyl, but-3-enyl, 2-azidoethyl, 2-fluoroethyl, 2-chloroethyl, cyclohexyl, phenyl, or benzyl;
5 R^8 is methyl, ethyl vinyl, propyl, isobutyl, pentyl, prop-2-enyl, propargyl, but-3-enyl, 2-azidoethyl, 2-fluoroethyl, 2-chloroethyl, cyclohexyl, phenyl, or benzyl; and,
 x is a single or a double bond.

3. The compound as in claim 1 of the formula



10

wherein

R is hydrogen, substituted C_1-C_5 alkyl, unsubstituted C_1-C_5 alkyl, substituted aryl, unsubstituted aryl, substituted alkylaryl or unsubstituted alkylaryl;

15 R^0 is hydroxyl or methoxy;

R^1 is hydrogen or hydroxyl;

R^2 and R^3 are each independently substituted C_1-C_5 alkyl, unsubstituted C_1-C_5 alkyl, phenyl or benzyl;

R^4 is methyl;

R^5 is hydroxyl or oxo;

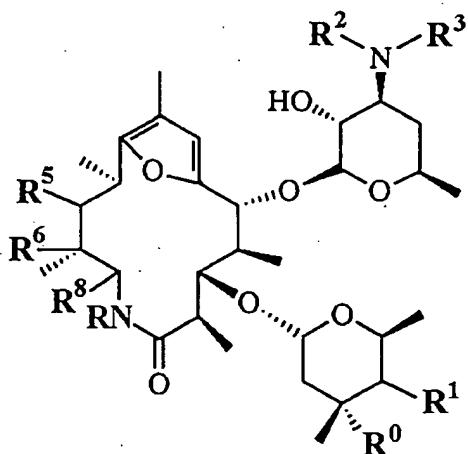
20 R^6 is hydrogen, hydroxyl, or OR^{12} wherein R^{12} is substituted C_1-C_5 alkyl, or unsubstituted C_1-C_5 alkyl;

R^7 is methyl, unsubstituted C_3 - C_5 alkyl, substituted C_2 - C_5 alkyl, substituted C_2 - C_5 alkenyl, unsubstituted C_2 - C_5 alkenyl, substituted C_2 - C_5 alkynyl, unsubstituted C_2 - C_5 alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl unsubstituted alkylaryl, substituted alkenylaryl or unsubstituted alkenylaryl alkenylaryl; and,

5 x is single bond or a double bond.

4. The compound as in claim 3 wherein x is a single bond.

5. The compound as in claim 1 of the formula



10

wherein

R is hydrogen, substituted C_1 - C_5 alkyl, unsubstituted C_1 - C_5 alkyl, substituted aryl, unsubstituted aryl, substituted alkylaryl or unsubstituted alkylaryl;

R^0 is hydroxyl or methoxy;

15 R^1 is hydrogen or hydroxyl;

R^2 and R^3 are each independently substituted C_1 - C_5 alkyl, unsubstituted C_1 - C_5 alkyl, phenyl or benzyl;

R^5 is hydroxyl or oxo;

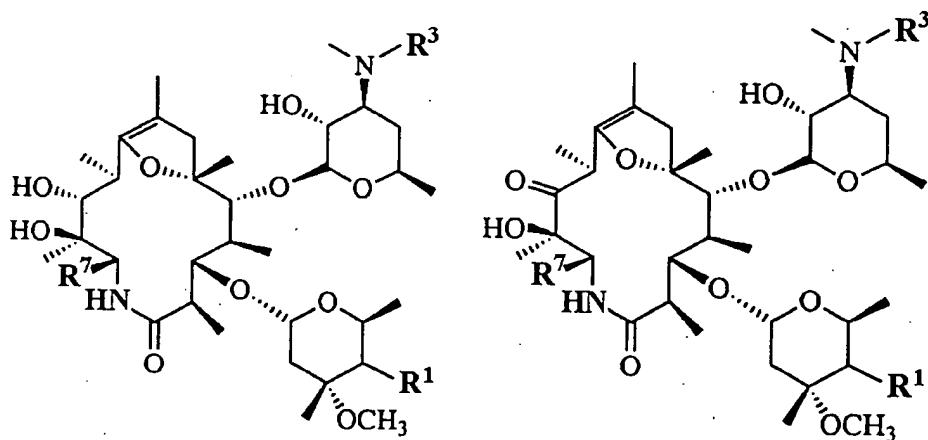
R^6 is hydrogen, hydroxyl, or OR^{12} wherein R^{12} is substituted C_1 - C_5 alkyl, or

20 unsubstituted C_1 - C_5 alkyl; and,

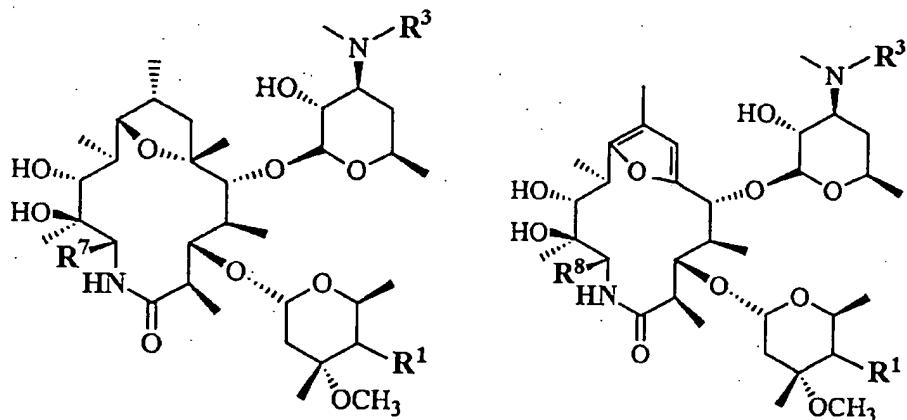
R^8 is substituted C_1 - C_5 alkyl, unsubstituted C_1 - C_5 alkyl, substituted C_2 - C_5 alkenyl, unsubstituted C_2 - C_5 alkenyl, substituted C_2 - C_5 alkynyl, unsubstituted C_2 - C_5 alkynyl,

substituted aryl, unsubstituted aryl, substituted alkylaryl unsubstituted alkylaryl, substituted alkenylaryl or unsubstituted alkenylaryl alkenylaryl.

6. A compound of the structure



5



or

wherein

R is hydrogen, methyl, ethyl, propyl, isopropyl, phenyl or benzyl; R⁰ is hydroxyl or methoxy;

10 R¹ is hydrogen or hydroxyl;

R³ is methyl, ethyl, propyl, isopropyl, butyl, isobutyl, secbutyl or tertbutyl;

R⁷ is methyl, vinyl, propyl, isobutyl, pentyl, prop-2-enyl, propargyl, but-3-enyl, 2-azidoethyl, 2-fluoroethyl, 2-chloroethyl, cyclohexyl, phenyl, or benzyl;

R^8 is methyl, ethyl vinyl, propyl, isobutyl, pentyl, prop-2-enyl, propargyl, but-3-enyl, 2-azidoethyl, 2-fluoroethyl, 2-chloroethyl, cyclohexyl, phenyl, or benzyl.

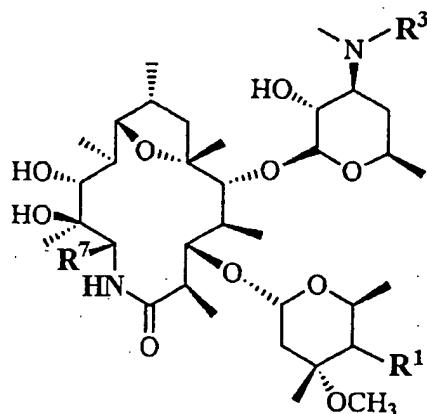
7. The compound as in claim 6 wherein

5 R^3 is methyl, ethyl, or isopropyl;

R^7 is propyl or fluoroethyl; and

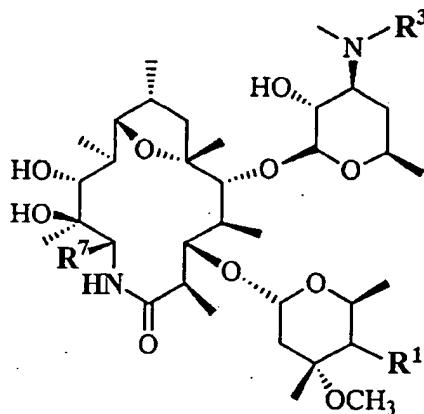
R^8 is ethyl, propyl or fluoroethyl.

8. The compound as in claim 7 of the structure



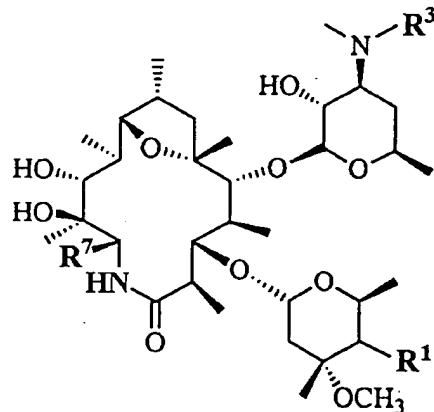
10 wherein R^1 is hydrogen, R^3 is ethyl and R^7 is propyl.

9. The compound as in claim 7 of the structure



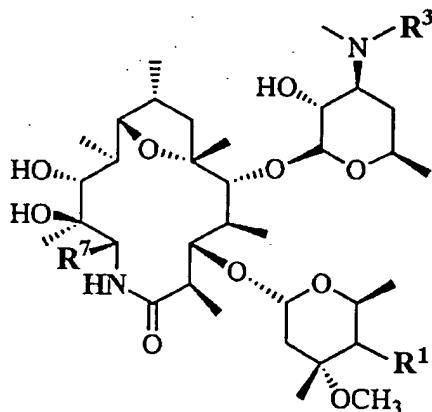
15 wherein R^1 is hydroxyl, R^3 is ethyl and R^7 is propyl.

10. The compound as in claim 7 of the structure



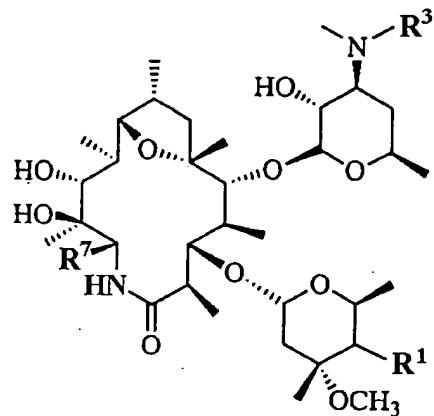
wherein R¹ is hydrogen, R³ is isopropyl and R⁷ is propyl.

5 11. The compound as in claim 7 of the structure



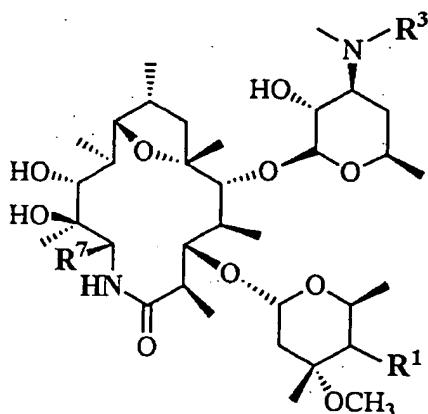
wherein R¹ is hydroxyl, R³ is isopropyl and R⁷ is propyl.

12. The compound as in claim 7 of the structure



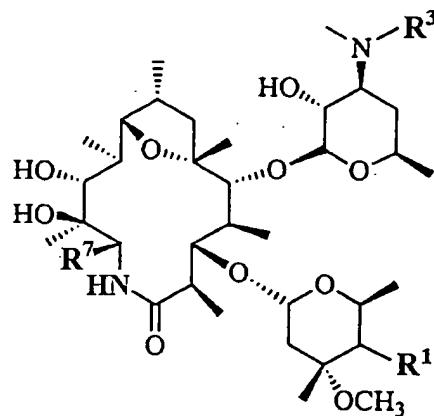
wherein R¹ is hydrogen, R³ is ethyl and R⁷ is fluoroethyl.

5 13. The compound as in claim 7 of the structure



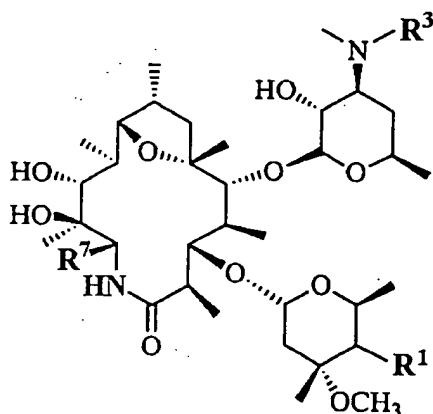
wherein R¹ is hydroxyl, R³ is ethyl and R⁷ is fluoroethyl.

14. The compound as in claim 7 of the structure



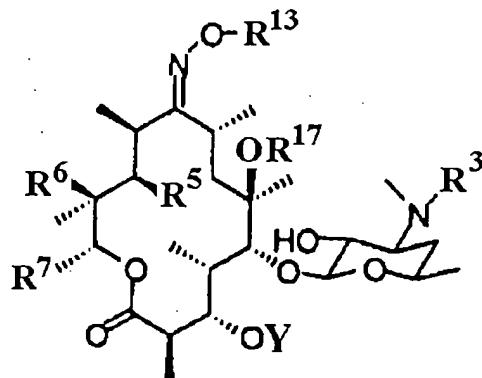
wherein R¹ is hydrogen, R³ is isopropyl and R⁷ is fluoroethyl.

5 15. The compound as in claim 7 of the structure



wherein R¹ is hydroxyl, R³ is isopropyl and R⁷ is fluoroethyl.

16. A compound of the structure



wherein

Y is hydrogen, substituted C_1-C_{10} alkyl, unsubstituted C_1-C_{10} alkyl, substituted C_2-C_{10} alkenyl, unsubstituted C_2-C_{10} alkenyl, substituted C_2-C_{10} alkynyl, unsubstituted C_2-C_{10} alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, unsubstituted alkynylaryl, unsubstituted cladinoose, or substituted cladinoose;

R^3 is hydrogen, substituted C_1-C_{10} alkyl, unsubstituted C_1-C_{10} alkyl, substituted C_2-C_{10} alkenyl, unsubstituted C_2-C_{10} alkenyl, substituted C_2-C_{10} alkynyl, unsubstituted C_2-C_{10} alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R^5 is hydroxyl or oxo;

R^6 is hydrogen, hydroxyl, or OR^{12} where R^{12} is substituted C_1-C_{10} alkyl, unsubstituted C_1-C_{10} alkyl, substituted C_2-C_{10} alkenyl, unsubstituted C_2-C_{10} alkenyl, substituted C_2-C_{10} alkynyl, or unsubstituted C_2-C_{10} alkynyl;

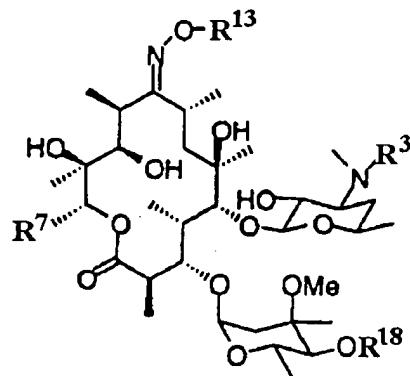
R^7 is methyl, unsubstituted C_3-C_{10} alkyl, substituted C_1-C_{10} alkyl, substituted C_2-C_{10} alkenyl, unsubstituted C_2-C_{10} alkenyl, substituted C_2-C_{10} alkynyl, unsubstituted C_2-C_{10} alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R^{13} is hydrogen, unsubstituted C_1-C_{10} alkyl, substituted C_1-C_{10} alkyl, substituted C_2-C_{10} alkenyl, unsubstituted C_2-C_{10} alkenyl, substituted C_2-C_{10} alkynyl, unsubstituted C_2-C_{10}

alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl; and,

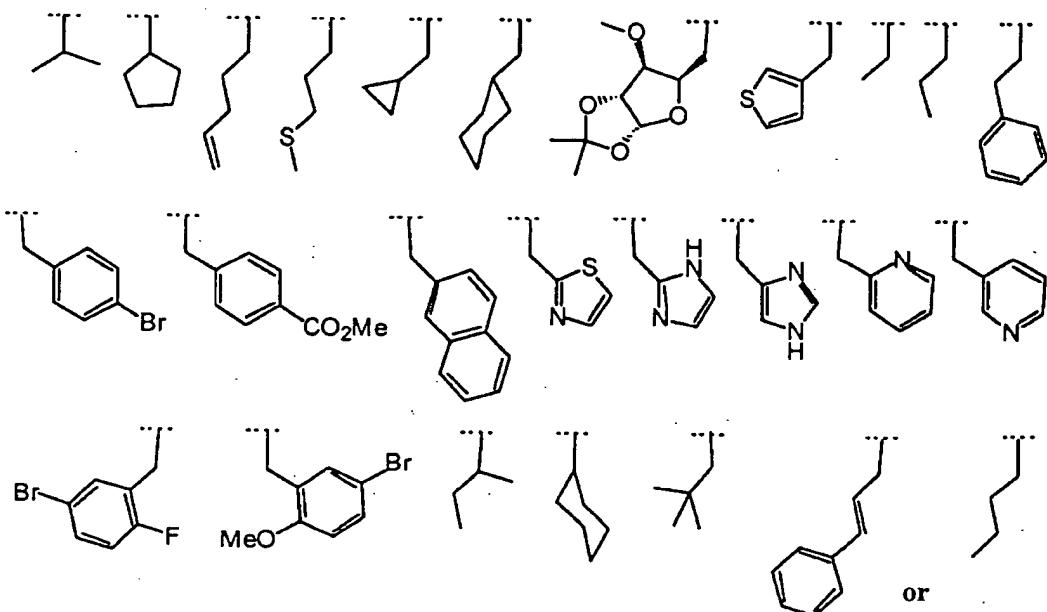
R^{17} is hydrogen or methyl.

5 17. The compound as in claim 16 of the structure



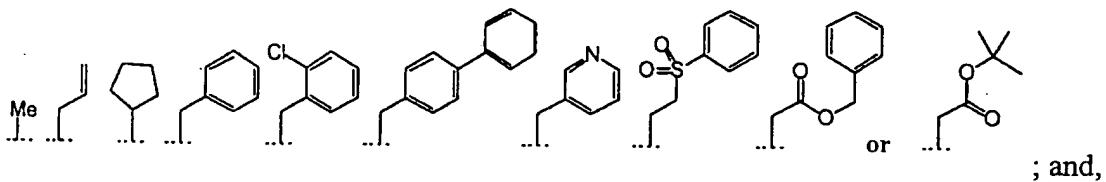
wherein

\mathbb{R}^3 is

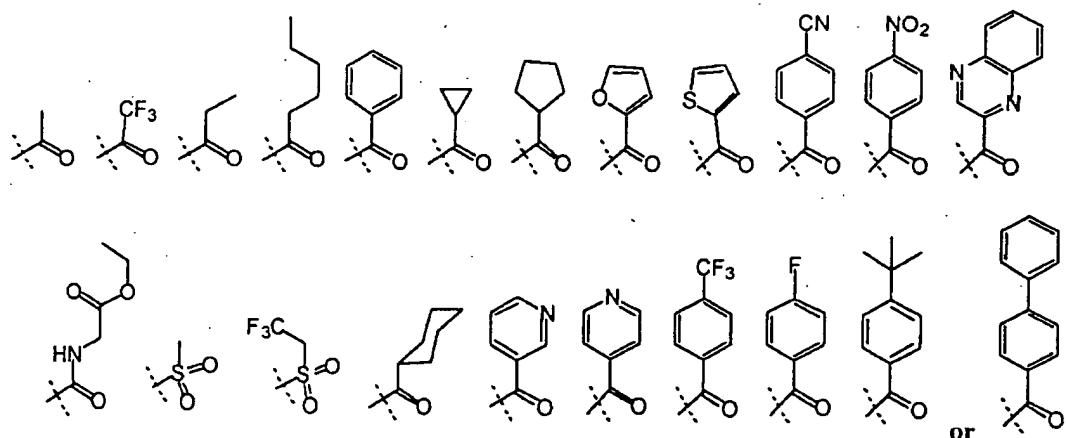


10 R⁷ is propyl or 2-fluoroethyl;

R^{13} is

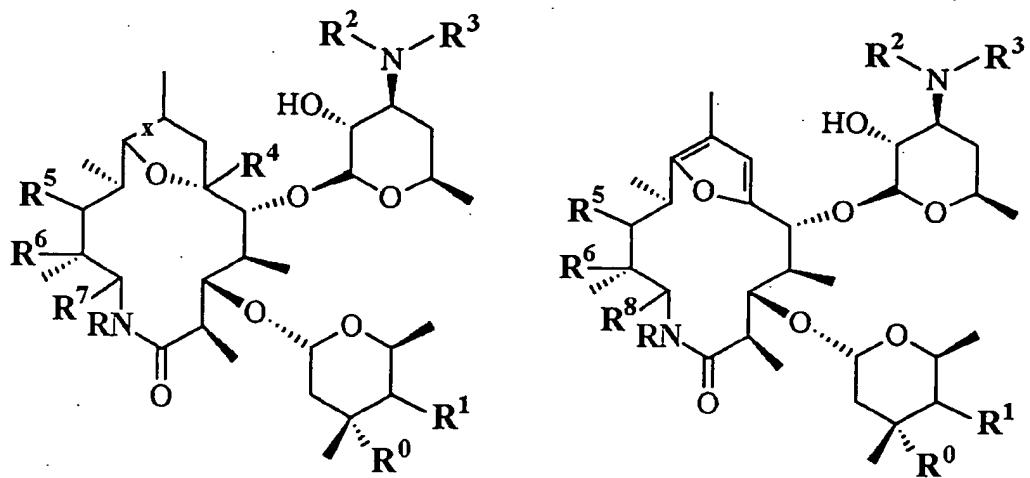


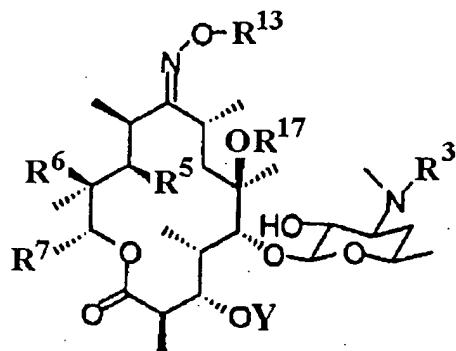
R^{18} is



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18. A method of treating a subject suffering from impaired GI motility comprising: administering a composition comprising a compound of the formula





or

wherein:

R is hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀

5 alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R⁰ is hydroxyl or methoxy;

R¹ is selected from the group consisting of hydrogen, hydroxyl, halide, NH₂, OR⁹,

10 OCR^9 , $\text{OCNR}^{10}\text{R}^{11}$, NCR^9 , and $\text{NCNR}^{10}\text{R}^{11}$ where R⁹ is substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl, and R¹⁰ and R¹¹ are each independently hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

15 R² and R³ are each independently selected from the group consisting of hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl,

unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl, or R² and R³ together form a cycloalkyl or an aryl moiety;

R⁴ is hydrogen or methyl;

5 R⁵ is hydroxyl or oxo;

R⁶ is hydrogen, hydroxyl, or OR¹² where R¹² is substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, or unsubstituted C₂-C₁₀ alkynyl;

10 R⁷ is methyl, unsubstituted C₃-C₁₀ alkyl, substituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

15 R⁸ is unsubstituted C₁-C₁₀ alkyl, substituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

20 R¹³ is hydrogen, unsubstituted C₁-C₁₀ alkyl, substituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R¹⁷ is hydrogen or methyl;

x is a single or a double bond; and,

25 Y is hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, unsubstituted alkynylaryl, unsubstituted cladinose, or substituted cladinose.

PATENT APPLICATION

19. The method as in claim 18 wherein the subject is a human suffering from gastroparesis, gastroesophageal reflux disease, anorexia, gall bladder stasis, postoperative paralytic ileus, scleroderma, intestinal pseudoobstruction, gastritis, emesis, and chronic constipation (colonic inertia).

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